

ABSTRACT OF THE DISCLOSURE

A system for maintaining hydraulic pressure in a vehicle hydraulic system when the vehicle is stopped or idling. A hydraulic pressure reserve system includes a primary hydraulic circuit that includes a hydraulic pump and a hydraulic sump and that provides hydraulic pressure to at least a hydraulically actuated transmission and an accumulator tank and control valve connected from the primary hydraulic circuit for storing a reserve of hydraulic fluid at an accumulator pressure. An accumulator control valve, such as a bi-directional valve, allows a flow of hydraulic fluid between the primary circuit and the accumulator tank according to the primary circuit pressure to raise the primary circuit pressure towards a desired pressure. The hydraulic pressure reserve system may include a primary gear connected from a primary drive and driving an auxiliary secondary gear with a primary drive clutch for connecting the secondary gear to drive the hydraulic pump and an auxiliary drive clutch for connecting the auxiliary secondary gear or a drive chain to drive the hydraulic pump.